

Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Please amend claims 198-200, 202-207, 219, 227-231, 235, 236 and 238-243 as shown.

Claims 1 to 196 (canceled).

197. (previously presented) A method for reducing the level of active biological contaminants or pathogens in a solid tissue, said method comprising:

(i) adding to said tissue at least one stabilizer selected from the group consisting of ascorbic acid, sodium ascorbate, mannitol, trehalose, dimethylsulfoxide (DMSO), butylatedhydroxytoluene (BHT), dimethylthiourea, glutathione, lipoic acid, 6-hydroxy-2,5,7,8-tetramethylchroman-2-carboxylic acid (Trolox), uric acid, albumin, histidine, N-acetyl cysteine, tryptophan, N-acetyl-tryptophan, methionine, cysteine, and N-tert-butyl-alpha-phenyl nitron; and

(ii) irradiating said tissue with a suitable dose of gamma radiation effective to reduce the level of active biological contaminants or pathogens in said tissue.

198. (currently amended) The method of Claim 197 wherein the solid tissue is hard tissue.

199. (currently amended) The method of Claim 198 wherein the hard tissue is selected from the group consisting of bone, ~~demineralized bone matrix~~, joints, femurs, femoral heads and teeth.

200. (currently amended) The method of Claim 197 wherein the solid tissue is soft tissue.

201. (previously presented) The method of Claim 200 wherein the soft tissue is selected from the group consisting of bone marrow, ligaments, tendons, nerves, skin grafts, heart valves, cartilage, corneas, arteries and veins.

202. (currently amended) The method of Claim 197 wherein the solid tissue is a combination of hard and soft tissue.

203. (currently amended) The method of Claim 197, wherein the solid said tissue is at a

temperature below its freezing point during irradiation.

204. (currently amended) The method of Claim 197 wherein the solid said tissue is maintained in an inert atmosphere during irradiation.

205. (currently amended) The method of Claim 204 wherein the solid said tissue is maintained under vacuum during irradiation.

206. (currently amended) A method for reducing the level of active biological contaminants or pathogens in a protein sample, said method comprising:

(i) adding to said protein sample at least one stabilizer selected from the group consisting of ~~ascorbic acid~~, mannitol, trehalose, dimethylsulfoxide (DMSO), ~~butylatedhydroxytoluene (BHT)~~, dimethylthiourea, glutathione, lipoic acid, 6-hydroxy-2,5,7,8-tetramethylchroman-2-carboxylic acid (Trolox), uric acid, ~~albumin~~, histidine, N-acetyl cysteine, ~~tryptophan~~, ~~N-acetyl-tryptophan~~, methionine and N-tert-butyl-alpha-phenyl nitron; and

(ii) irradiating said protein sample with a suitable dose of gamma radiation effective to reduce the level of active biological contaminants or pathogens in said protein sample.

207. (currently amended) The method of Claim 206, wherein the said protein sample is at a temperature below its freezing point during irradiation.

208. (previously presented) The method of Claim 206 wherein the protein sample is maintained in an inert atmosphere during irradiation.

209. (previously presented) The method of Claim 208 wherein the protein sample is maintained under vacuum during irradiation.

210. (previously presented) The method of Claim 206 wherein the protein sample contains one or more proteins.

211. (previously presented) The method of Claim 206 wherein the protein is an antibody,

immunoglobulin, hormone, growth factor, anticoagulant, clotting factor or complement protein.

212. (previously presented) The method of Claim 211 wherein the clotting factor is selected from the group consisting of Thrombin, Factor II, Factor V, Factor VII, Factor VIIa, Factor VIII, Factor IX, Factor X, Factor XIII, Factor XIIIa, Von Willebrand Factor, Fibrin and Fibrinogen.

213. (previously presented) The method of Claim 211 wherein the immunoglobulins are polyclonal or monoclonal immunoglobulins or mixtures thereof.

214. (previously presented) The method of Claim 213 wherein the immunoglobulins are immunoglobulin G, immunoglobulin M, immunoglobulin A, immunoglobulin E or mixtures thereof.

215. (previously presented) The method of Claim 206 wherein the protein is selected from the group consisting of protein C, protein S, alpha-1 anti-trypsin (alpha-1 protease inhibitor), heparin, insulin, butyl-cholinesterase, warfarin, streptokinase, tissue plasminogen activator (TPA), erythropoietin (EPO), urokinase, neupogen, antithrombin-3, alpha-glucosidase and albumin.

216. (previously presented) The method of Claim 206 wherein the protein is produced by recombinant methods.

217. (previously presented) A method for reducing the level of active biological contaminants or pathogens in plasma or serum, said method comprising:

(i) adding to said plasma or serum at least one stabilizer selected from the group consisting of ascorbic acid, sodium ascorbate, mannitol, trehalose, dimethylsulfoxide (DMSO), butylatedhydroxytoluene (BHT), dimethylthiourea, glutathione, lipoic acid, 6-hydroxy-2,5,7,8-tetramethylchroman-2-carboxylic acid (Trolox), uric acid, albumin, histidine, N-acetyl cysteine, tryptophan, N-acetyl-tryptophan, methionine, cysteine, and N-tert-butyl-alpha-phenyl nitron; and

(ii) irradiating said plasma or serum with a suitable dose of gamma radiation effective to reduce the level of active biological contaminants or pathogens in said plasma or serum.

218. (previously presented) The method of Claim 217 wherein the serum is fetal bovine serum.

219. (currently amended) The method of Claim 217, wherein the said plasma or serum is at a temperature below its freezing point during irradiation.

220. (previously presented) The method of Claim 217 wherein the plasma or serum is maintained in an inert atmosphere during irradiation.

221. (previously presented) The method of Claim 220 wherein the plasma or serum is maintained under vacuum during irradiation.

222. (previously presented) The method according to Claim 197, 206 or 217, wherein said irradiation is applied at a rate of at least about 3.0 kGy/hour to at least about 30.0 kGy/hour.

223. (previously presented) The method of Claim 197, 206 or 217, wherein the total dose of gamma irradiation is at least about 45 kGy.

224. (previously presented) The method of Claim 197, 206 or 217, wherein the concentration of the stabilizer is at least 20 mM.

225. (previously presented) The method of Claim 197, 206 or 217, wherein the concentration of the stabilizer is at least 50 mM.

226. (previously presented) The method of Claim 197, 206 or 217, wherein the concentration of the stabilizer is at least 100 mM.

227. (currently amended) The method of Claim 197, 206 or 217 wherein the at least one stabilizer ~~one or more stabilizers~~ is DMSO.

228. (currently amended) The method of Claim 197, 206 or 217 wherein the at least one stabilizer ~~one or more stabilizers~~ is mannitol.

229. (currently amended) The method of Claim 197, 206 or 217 wherein the at least one

stabilizer ~~one or more stabilizers~~ is trehalose.

230. (currently amended) The method of Claim 197, 206 or 217, wherein the at least one stabilizer is a combination of two or more stabilizers ~~is added to said tissue, protein sample, plasma or serum.~~

231. (currently amended) The method of Claim 230, wherein the two or more stabilizers are selected from the group consisting of DMSO, mannitol and trehalose.

232. (previously presented) The method of Claim 231, where the two or more stabilizers are DMSO and mannitol.

233. (previously presented) The method of Claim 197, 206 or 217, further comprising contacting the tissue, protein sample, plasma or serum with one or more sensitizers.

234. (previously presented) The method of Claims 197 or 206 wherein the tissue or protein sample contains one or more residual solvents.

235. (currently amended) The method of Claim 234 wherein the one or more residual solvents ~~solvent~~ is water.

236. (currently amended) The method of Claim 234 wherein the one or more residual solvents ~~solvent~~ is an organic solvent.

237. (previously presented) The method of Claim 236 wherein the organic solvent is selected from the group consisting of ethanol, isopropanol and polyethylene glycol.

238. (currently amended) The method of Claim 234 wherein the one or more residual solvents ~~solvent~~ content is reduced by lyophilization.

239. (currently amended) The method of Claim 238 wherein the one or more residual solvents

solvent content is less than 8.0 percent.

240. (currently amended) The method of Claim 238 wherein the one or more residual solvents solvent content is less than 6.0 percent.

241. (currently amended) The method of Claim 238 wherein the one or more residual solvents solvent content is less than 1.0 percent.

242. (currently amended) The method of Claim 238 wherein the one or more residual solvents solvent content is less than 0.5 percent.

243. (currently amended) The method of Claim 197, 206 or 217, wherein the tissue, protein sample, or plasma or serum is irradiated for a sufficient amount of time to reduce the level of one or more biological contaminants in the tissue, protein sample, plasma or serum.